

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Patent No. : 7,260,083
Issued : August 21, 2007
Title : MPLS IMPLEMENTATION ON AN ATM PLATFORM
Applicant : Mike Reeves, et al.
Application No. : 09/977,984
Filed : October 17, 2001
Confirmation No. : 4341
Art Unit : 2661
Examiner : Rhonda L. Murphy
Docket No. : 123081-339669
Customer No. : 27,155

Commissioner of Patents
Office of Patent Publication
Attention: Certificates of Correction Branch
P.O. Box 1450
Alexandria, V.A. 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION

Sir:

The Applicant respectfully requests the issue of a Certificate of Correction for the above noted patent.

The requested corrections are as follows:

1. Specification, column 3, line 22: Replace the number “WO95/303 18” with the number --WO95/30318--.
2. Specification, column 6, line 60: Replace the word “NTT” with the word --NTI--.
3. Specification, column 7, line 27: Insert a period after the word “thereof”.
4. Specification, column 12, line 27: Replace the word “VPIVCI” with the word --VPI/VCI--.
5. Specification, column 12, line 40: Insert a period after the word “ref”.
6. Specification, column 13, line 12: Replace the comma after the number “1” with a period.
7. Specification, column 13, line 17: Insert a period after the word “interval”.
8. Specification, column 13, line 35: Insert a period after the word “thereto”.
9. Claim 1, column 17, line 11: Replace the word “record” with the word --records--.
10. Claim 10, column 18, line 26: Replace the number “1” with the number --9--.

Please find enclosed a completed Form PTO/SB/44 (“Certificate of Correction”) indicating the above corrections.

The errors for which corrections are requested were made by the Patent Office (i.e., items 1-7 and 10 above) and by the Applicant (i.e., items 8-9 above).

The above corrections are fully supported by the Applicant’s specification as filed and by the “Examiner’s Amendment” in the “Notice of Allowability” included with the “Notice of Allowance” mailed April 12, 2007. A copy of the Notice of Allowability is enclosed for reference.

The Commissioner is hereby authorized to charge all necessary fees and to credit Deposit Account No. 150633 in the name of McCarthy Tétrault LLP (Customer No. 27,155).

No new matter has been entered by the above corrections.

Respectfully submitted,

McCarthy Tétrault LLP

Date: September 27, 2007

By

A handwritten signature in black ink, appearing to read "J. Conneely", written over a horizontal line.

Joseph P. Conneely
Registration No. 54,883
Telephone: (416) 601-8179
Fax: (416) 868-0673

McCarthy Tétrault LLP
Box 48, Suite 4700
66 Wellington Street West
Toronto Dominion Bank Tower
Toronto, Ontario, Canada
M5K 1E6

Enclosure(s)

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,260,083
APPLICATION NO.: 09/977,984
ISSUE DATE : AUGUST 21, 2007
INVENTOR(S) : MIKE REEVES, ET AL.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1. Specification, column 3, line 22: Replace the number "WO95/303 18" with the number --WO95/30318--.
2. Specification, column 6, line 60: Replace the word "NTT" with the word --NTI--.
3. Specification, column 7, line 27: Insert a period after the word "thereof".
4. Specification, column 12, line 27: Replace the word "VPI/CI" with the word --VPI/VCI--.
5. Specification, column 12, line 40: Insert a period after the word "ref".
6. Specification, column 13, line 12: Replace the comma after the number "4" with a period.
7. Specification, column 13, line 17: Insert a period after the word "interval".
8. Specification, column 13, line 35: Insert a period after the word "thereto".
9. Claim 1, column 17, line 11: Replace the word "record" with the word --records--.
10. Claim 10, column 18, line 26: Replace the number "1" with the number --9--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

MCCARTHY TETRAULT LLP, BOX 48, SUITE 4700, 66 WELLINGTON STREET WEST, TORONTO,
ONTARIO, CANADA M5K 1E6

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED
McCarthy Tétrault LLP

JAN 25 2007

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMUNICATIONS FOR PATENT EXAMINER
P.O. Box 1000
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

27155

7590

01/12/2007

MCCARTHY TETRAULT LLP
BOX 48, SUITE 4700,
66WELLINGTON STREET WEST
TORONTO, ON M5K 1E6
CANADA

EXAMINER

MURPHY, RHONDA L

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 01/12/2007

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,984	10/17/2001	Mike Reeves	53921/90	4341

TITLE OF INVENTION: MPLS IMPLEMENTATION ON AN ATM PLATFORM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$0	\$1700	04/12/2007

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- Pay TOTAL FEE(S) DUE shown above, or
- If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

I. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

II. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Notice of Allowability

Application No.

09/977,984

Examiner

Rhonda Murphy

Applicant(s)

REEVES ET AL.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 10/13/06.
2. ☒ The allowed claim(s) is/are 12-16, 18-22 (renumbered 1-10, respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

- ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Nakano on 1/5/07.

The application has been amended as follows:

Refer to the attached document for the amended claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2616

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2616

RM

Interview Summary

Application No.

09/977,984

Applicant(s)

REEVES ET AL.

Examiner

Rhonda Murphy

Art Unit

2616

All participants (applicant, applicant's representative, PTO personnel):

(1) Rhonda Murphy.

(3) _____

(2) Robert Nakano.

(4) _____

Date of Interview: 05 January 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____

Claim(s) discussed: 3-5,7,9,12-16 and 18-30.

Identification of prior art discussed: _____

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant agreed to withdraw claims 3-5,7,9 and 23-30. Claims 12 and 19 have been amended to replace the term "connection" with "LDP", and claim 19 is now properly dependent upon claim 12.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Application No. 09/977,984

~~Examiner's~~ Amendments to Application

- 2 -

Proposed Amendments to the Claims:

This listing of claims is proposed to replace all prior versions of claims in the application:

Listing of Claims:

Claim 1. (Cancelled)

Claim 2. (Cancelled)

Claim 3. (Withdrawn)

Claim 4. (Withdrawn)

Claim 5.(Withdrawn)

Claim 6. (Cancelled)

Claim 7. (Withdrawn)

Claim 8. (Cancelled)

Claim 9. (Withdrawn)

Claim 10. (Cancelled)

Claim 11. (Cancelled)

Claim 12. (Proposed Amendment) A method of establishing a label switched path (LSP) over a MPLS routing domain, ~~established within an IP over ATM network~~, comprising the steps of:

- (a) receiving a LSP setup request for connecting an ingress node in said MPLS routing domain with an egress node;
- (b) defining a unique LSP ID for said LSP and establishing a signalling link between said ingress and egress node, by creating a label distribution protocol (LDP) session at said ingress node, egress node and each hop along said LSP;
- (c) associating all said LDP sessions to said LSP; and
- (d) establishing said LSP for transmitting traffic along said LSP between said ingress and egress nodes by
providing at said ingress node a retry timer tracking an interval of time based on a back off mechanism for enabling successive attempts to establish said LSP at increasing retry intervals;

123081-339669

TDO-RED #8351225 v. 1 #

Application No. 09/977,984

~~Continued from~~ Amendments to Application

- 3 -

selecting one record from a list of record relating to a plurality of requests for ~~connections~~ LSPs;
attempting to establish a ~~connection~~ LSP relating to said one record; ~~said connection being related to said LSP~~; and
if said ~~connection~~ LSP relating to said one record is established, then marking said one record as being successfully ~~connected~~ established,
otherwise re-attempting to establish said ~~connection~~ LSP at said increasing time intervals, each of said successive increasing time interval being greater than a last interval ~~by said regular interval of time~~.

Claim 13. (Previously Presented) The method of claim 12, wherein said retry timer provides an initial retry interval of T seconds, and each next successive retry interval is longer than a previous period of time by T seconds.

Claim 14. (Previously Presented) The method as claimed in claim 13 wherein the sum of the increasing retry intervals does not exceed a maximum time value.

Claim 15. (Previously Presented) The method as claimed in claim 13 wherein said LSP is a signaling LSP.

Claim 16. (Previously Presented) The method as claimed in claim 13 wherein T is 10 seconds.

Claim 17. (Cancelled)

Claim 18. (Previously Presented) The method as claimed in claim 12, wherein:
each record of said list of records includes a respective time field; and
said selecting one record from said list comprises, at each said increasing retry interval
and for said each record in said list of records:
decrementing a time value stored in said each respective time field; and

123081-339669
TDO-RED #8351225 v. 1.0

Application No. 09/977,984

~~Underlying Patent~~ Amendments to Application

- 4 -

if the time value for any said each respective time field is zero, then selecting the record associated with the any said each respective time field as said one record.

Claim 19 (Proposed Amendment) The method as claimed in claim 17, 12, wherein said re-attempting to establish said ~~connection~~ LSP occurs only if the sum of the increasing retry intervals does not exceed a maximum time value.

Claim 20. (Previously Presented) The method as claimed in claim 19 wherein said maximum time value is sixty seconds.

Claim 21. (Previously Presented) The method of claim 12, wherein said step (b) comprises: establishing at least another signaling link between said ingress and egress node, and selecting one of said signaling link and said another signaling link utilizing a round robin algorithm.

Claim 22. (Previously Presented) The method of claim 21, further comprising not selecting any of said signaling links whenever said network does not have sufficient resources for establishing one of said signaling links.

Claim 23. (Withdrawn)

Claim 24. (Withdrawn)

Claim 25. (Withdrawn)

Claim 26. (Withdrawn)

Claim 27. (Withdrawn)

Claim 28. (Withdrawn)

Claim 29. (Withdrawn)

Claim 30. (Withdrawn)

* * *

123081-339669
TDO-RED #8351225 v. 1 #